

WHAT IS CLAIMED IS:

1. A tire tread cutting apparatus for cutting a length of tire tread to be affixed to a tire casing having a cushion gum, comprising:
 - a measuring device configured to measure at least one of the circumference of the tire casing and the circumference of the tire casing plus the cushion gum;
 - a tread dispenser configured to automatically dispense a length of tire tread based on the circumference of at least one of the tire casing and the tire casing plus the cushion gum.
2. The apparatus of claim 1, wherein the tread length is dispensed by pushing the tread length.
3. The apparatus of claim 1, wherein the tread dispenser comprises:
 - a tread cutter, configured to cut the tread to a determined length.
4. The apparatus of claim 1, wherein the tread dispenser comprises:
 - a curved track for guiding the length of tire tread.
5. The apparatus of claim 1, wherein the tread dispenser comprises:
 - a first clamp for clamping the length of tire tread adjacent a first end; and
 - a second clamp for clamping the length of tire tread adjacent a second end.

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1 6. The apparatus of claim 5, further comprising:
2 a retractable stop configured to provide a known location of the
3 first end relative to the first clamp.

1 7. The apparatus of claim 5, further comprising:
2 a tread cutter, configured to cut the tread to a determined
3 length and located a known distance from the second clamp.

1 8. A tire tread cutting apparatus for cutting a length of tire tread to
2 be affixed to a tire casing having a cushion gum, comprising:
3 a measuring device configured to measure at least one of the
4 circumference of the tire casing and the circumference of the tire casing plus the
5 cushion gum;
6 a tread dispenser configured to automatically dispense a length
7 of tire tread based on the circumference of at least one of the tire casing and the
8 tire casing plus the cushion gum, the length of tire tread having a first end and a
9 second end and a periodically repeating pattern; and
10 a tread cutter configured to cut the tread to a determined
11 length.

1 9. The apparatus of claim 8, wherein the determined length is
2 specified by an operator.

1 10. The apparatus of claim 8, wherein the determined length is
2 based on matching the pattern at the first end with the pattern at the second end
3 of the tire tread.

1 11. The apparatus of claim 8, wherein the determined length may
2 be automatically specified.

1 12. The apparatus of claim 11, wherein the tread cutter is
2 configured to automatically cut the tread to the determined length.

13. The apparatus of claim 8, wherein the tread length is dispensed by simultaneously pushing and pulling the tread.

14. A method of cutting a length of tire tread for a retread tire having a tire casing and a cushion gum applied to the tire casing, comprising:
measuring a circumference of the tire casing with the cushion gum applied;
communicating, electronically, the circumference of the tire casing with the cushion gum applied to the tire tread dispenser; and
dispensing, automatically, a length of tire tread based on the circumference of the tire casing with the cushion gum applied.

15. The method of claim 14, further comprising:
dispensing tire tread until a first end of the tire tread abuts a stop.

16. The method of claim 15, further comprising:
clamping the tire tread adjacent the first end.

17. The method of claim 16, further comprising:
retracting the stop.

18. The method of claim 17, further comprising:
clamping the tire tread adjacent a second end.

19. The method of claim 14, further comprising:
cutting the tire tread to an automatically determined length.

20. The method of claim 14, further comprising:
cutting the tire tread to an operator determined length.

- 1 21. The method of claim 14, further comprising:
- 2 cutting the tire tread to a length based on the tire
- 3 tread design.

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